



1/1 JAPIO - (C) JPO & Japio

PN - ***JP8103636*** A 960423

AP - JP24293594 941006

TI - LOW-TEMPERATURE DENITRATOR

PA - (351963) BABCOCK HITACHI KK

PAC - JP

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AB - PURPOSE: To oxidize an appropriate amt. of NO to NO₂ and then to allow the formed NO₂ to react efficiently with NO on a denitration catalyst by providing an oxidation catalyst to oxidize nitrogen monoxide in a waste gas on the upstream side of the denitration catalyst.

- CONSTITUTION: An NO oxidation catalyst (a) is packed on the upstream side in a catalytic denitrator 8 to convert a part of NO to NO₂ and then NO is allowed to react efficiently with NO₂ under almost equimolar conditions by a denitration catalyst (b) set on the downstream side in the denitrator 8 and removed. In this case, since the waste gas is controlled to ≥ 180 deg.C or preferably to 200-250 deg.C, ammonia is never formed on the catalyst. Accordingly, the denitration performance is drastically improved by the operating temp. in the system where NO and NO₂ coexist in 1:1 ratio compared with an NO single system, and hence the amt. of catalyst is reduced.



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Low temp. type denitrification appts. - in which exhaust gas contg.
nitrogen oxide is oxidised with oxidn. catalyst e.g. titanium-manganese,
and then reduced with reducing catalyst, etc.

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
JP 8103636	A	19960423	JP 94242935	A	19941006	B01D-053/94	199626 B

Abstract (Basic): JP 8103636 A

Exhaust gas contg. NO_x is oxidised with oxidn. catalyst, e.g.
Ti/Mn, Ti/Pt, Ti/Co and Ti/Cr and reduced with reducing catalyst at the
presence of reducing agent at low temp.

ADVANTAGE - NO_x is reduced efficiently and at low temp. using the
catalyst and appts.

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